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Monthly Statistical Report

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SUMMARY

In March, for the first time in more than a year, total deliveries declined. After accounting for residual fuel oil's losses to substitute fuels and unusually strong deliveries last March, underlying trends for remaining products indicate continued growth for light products at somewhere near 2 percent.

Deliveries data in the early part of last year were distorted by the market upheaval related to falling oil prices. Last March's gasoline deliveries, in particular, were roughly 300 thousand B/D above the prevailing trend, thus transforming what would have been a roughly 3 percent rise for gasoline deliveries this March into a small decline year to year. March's year-to-year change in distillate and kerosine jet fuel deliveries, as well, fell below what other consumption indicators would suggest.

Residual fuel oil's losses, however, reflect actual consumption declines. Electric utilities, responding to shifting price differentials between oil and natural gas, have curtailed the use of residual fuel oil, leading to an almost 14 percent drop in deliveries for March. This contrasts with an average increase of over 16 percent for 1986.

Domestic crude oil production, though up from February mainly due to higher Alaskan production, was still about 750 thousand B/D below the February 1986, recent-year peak. Lower 48 production has fallen almost 850 thousand B/D since that time, with the annualized rate of decline from the prior quarter running at about 6 percent for the first three months of 1987.

OPEC's production cutback continues to be reflected in U.S. imports, which decreased from prior months to about 5.4 million B/D. However, imports for the first quarter were still nearly 1 million B/D ahead of last year's first quarter and about equal to the increase in the gap between domestic supplies and total deliveries. Refinery turnarounds held utilization at about 78 percent, still higher by almost 2 percentage points compared with last March, with the seasonal shift in emphasis towards gasoline production clearly evident. Stocks fell only 9 million barrels, less than a third of the average of recent years.

PRODUCTS SUPPLIED^{1/}

Gasoline

DISTORTIONS LAST YEAR MASK GROWTH.

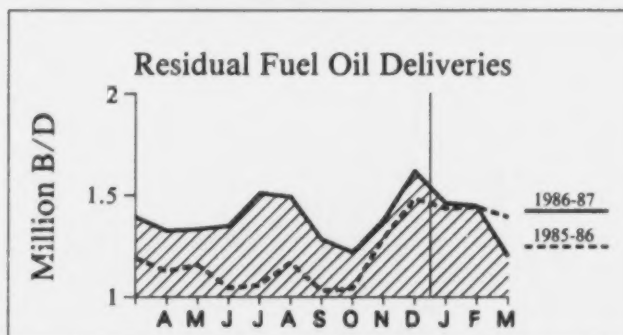
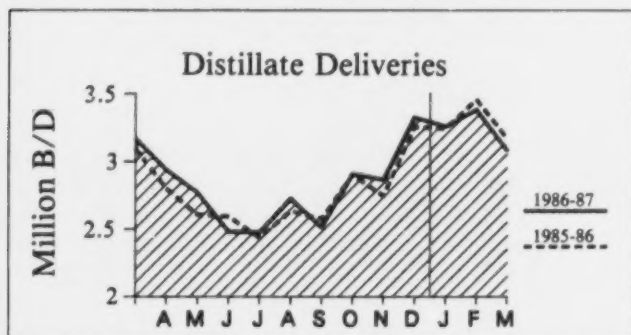
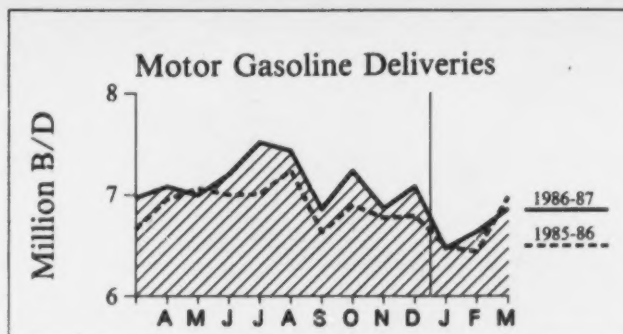
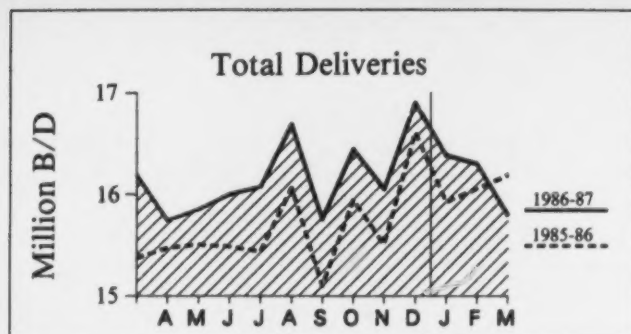
Motor gasoline deliveries' March decline of 1.6 percent year-to-year is more indicative of the disturbances affecting last year's deliveries data than of the trend in gasoline consumption this year. Had last March's deliveries followed the prevailing trend, deliveries this March would have risen by almost 3 percent year to year. On this basis, first quarter deliveries would have grown about 2 percent rather than the slim 0.3 percent calculated from the data, and would have about matched the apparent growth in gasoline consumption.

Unleaded's share of deliveries jumped almost 8 percentage points in March, similar to February's year-to-year increase. Though unleaded fuels as a whole have made strong gains against leaded gasoline in the past half-year, most of the increase has been for premium grades. Unleaded regular's share (including mid-grade) has remained at about the same level for much of the period. These patterns are the result of several market factors at work simultaneously. Continued retirement of older vehicles designed for leaded fuel, as well as regional introductions of mid-grade unleaded—often in place of leaded regular—have upped unleaded's share. But despite unleaded's growing portion, motorists' upgrading to higher octane fuels has kept the share of non-premium unleaded gasoline from growing significantly.

Retail gasoline prices rose again in March; increases since October have amounted to about 10 cents per gallon, mainly reflecting higher crude oil costs. However, March's average prices were still 20 percent lower than before the 1986 price decline and, on an inflation-adjusted basis, only slightly more than half the March 1981 peak.

API ESTIMATES

	MARCH		YEAR-TO-DATE	
	Million B/D	Percent Change	Million B/D	Percent Change
Total domestic deliveries	15.8	(2.4)	16.2	0.6
Crude production ^{2/}	8.4	(6.3)	8.4	(7.7)
Total imports ^{3/}	5.4	17.8	5.8	20.2
Stocks (million bbl) ^{3/}	1,049	5.5	na	na



Distillates

MARCH DELIVERIES DOWN 2.7 PERCENT.

Though warmer weather in major heating-oil-consuming regions and little if any growth in transportation use indicate small declines for distillate consumption for both March and the quarter as a whole, actual decreases in deliveries have been somewhat larger. March deliveries fell about 85 thousand B/D (2.7 percent) and the quarter's deliveries, about 50 MBD (this quarterly figure corrects for the Department of Energy's understated deliveries data for January 1986).

Nationally, March was about 4 percent colder than last year, but because temperatures in the Mid-Atlantic and Great Lakes regions were warmer on average than a year ago, the month's weather accounts for about 30 of the 85 thousand B/D year-to-year decline. Warmer weather for the quarter as a whole accounts for a similar portion of the first quarter's decline. Though truck tonnage data have been erratic in recent months, the trend appears to be slightly upwards; rail traffic has shown little year-to-year change. Thus the indicated increase in transportation diesel use would likely not have been enough to counteract the weather's negative effect on consumption.

Though we believe deliveries declines so far this year probably overstate the slight consumption decreases of the first quarter, over longer periods distillate growth has been positive but weak. Over the past six months, distillate deliveries have increased a mere 0.5 percent after adjusting for weather and understated data for January 1986.

Residual Fuel Oil

FIRST MAJOR DECLINE SINCE MID-1985.

Residual fuel oil's 190 thousand B/D, nearly 14 percent decline for March was the first of that size since mid-1985, as fuel switching away from residual fuel oil reduced deliveries to electric utilities and others

with dual fuel capability. March's decline left residual fuel oil deliveries at about the same level as for March 1985.

Last year, residual fuel oil deliveries increased considerably as East Coast utilities took advantage of lower residual fuel oil prices. Last year's deliveries rose over 16 percent, with a greater-than-30 percent jump for the third quarter alone. However, residual fuel oil prices have strengthened along with crude oil prices during the past six months, while natural gas prices have remained at lower levels, making residual fuel oil an unattractive choice in many cases.

Bunkering use continues to be relatively flat, reflecting the only slight growth in total foreign trade tonnage over the past year. Industrial and other uses, which may have experienced moderate increases in the latter part of last year, have probably been flat or even down slightly, the result of fuel switching away from residual fuel oil and only moderate growth in the industrial sector of the economy.

Kerosine Jet Fuel

DELIVERIES LAG BEHIND JET TRAFFIC.

A 6.3 percent rise for March kerosine jet fuel deliveries brought the first quarter's increase to a similar rate. Data on air traffic growth, however, continue to exceed these rates. First quarter growth in domestic available seat miles was likely in the 10 to 12 percent range; international seat miles, after experiencing small declines at times last year, likely rose 8 to 9 percent. These developments indicate there may be some caution in acquiring and holding jet fuel in inventory in view of recent higher prices and continued price uncertainty. Another factor may be jet fuel imported by airline co-ops into bonded storage and not included in petroleum imports data, though the extent to which this may reduce calculated deliveries is uncertain.

Other Oils

SMALL INCREASE FOR MARCH.

Deliveries of other oils rose 0.7 percent for March, consistent with recent gains. Higher prices for petroleum-based gasoil and naphtha have damped demand for those feedstocks in preference for lighter feedstocks derived from natural gas. Strengthening in ethane, and to some extent, propane deliveries should likely have been the result. Overall demand for major petrochemicals, though perhaps moderating from last year's level, remains strong.

As for other products, deliveries of propane and butanes have been growing in recent months; lubricants have largely continued their downward trend of the past several years, while coke deliveries have recently turned upward.

SUPPLY ^{1/}

Production

OFFSHORE DECLINES, BUT BY LESS THAN FOR ONSHORE FIELDS.

Lower 48 production continued at lower levels in March, falling almost 850 thousand B/D from the February 1986, recent-year peak. For the quarter, lower 48 production fell at an annual rate of about 6 percent from the prior quarter. Increased production from projects completed in the last several months in Alaska helped to boost production there, but total U.S. production in March was still nearly 750 thousand B/D, or 8 percent, below its level of 13 months previously. Combining the drop in crude oil production with the nearly 240 thousand B/D decline in natural gas liquids over the same interval brings the total decline in petroleum liquids production to roughly 1 million B/D in a little more than a year.

Offshore production has declined, as well, over that period, but by a lesser degree than for onshore fields. Offshore production, at roughly 1.2 million B/D or one seventh of U. S. crude oil output, has slipped by at least 5 percent since

February 1986, while onshore lower-48 production has fallen on the order of 13 percent. All major offshore regions have shared in the decline.

However, because of the long lead times involved, current offshore production largely represents the results of exploration and development expenditures already incurred before last year's oil price decline. Current offshore rig activity has declined as dramatically as onshore activity, and is now running at less than half the level of late 1985.

Imports

UP NEARLY 1 MMBD IN FIRST QUARTER.

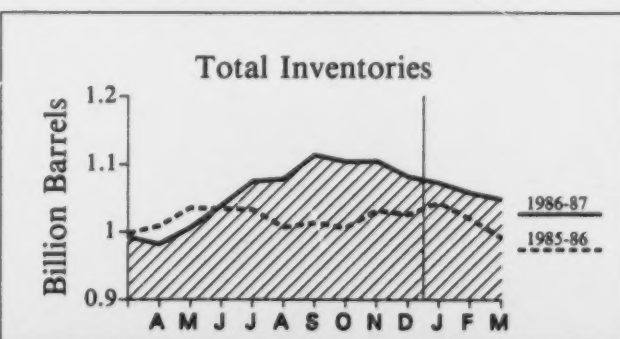
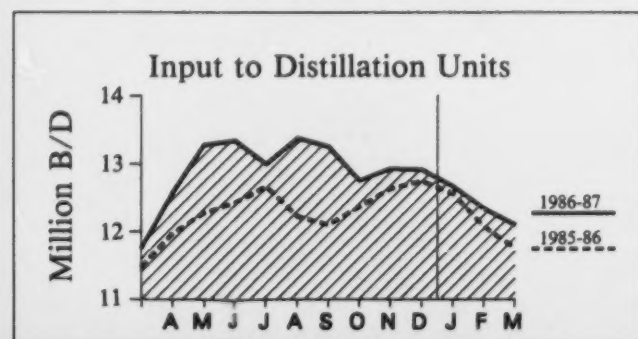
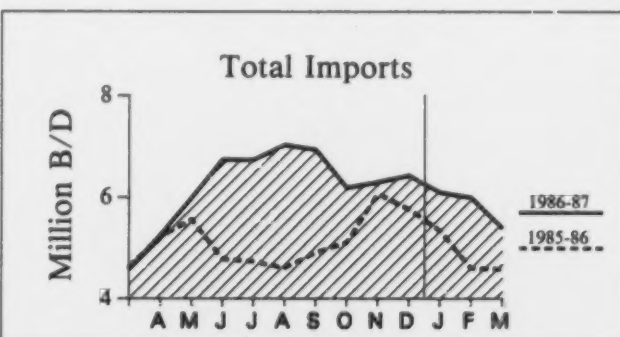
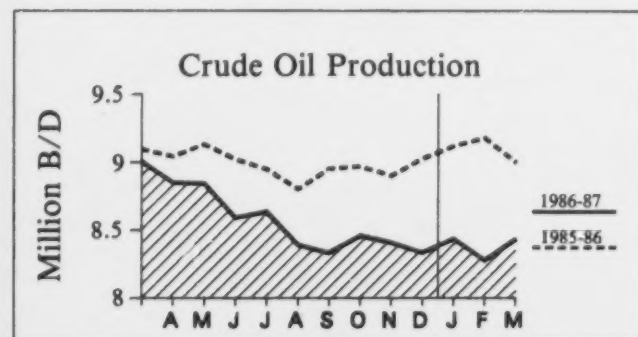
Recent OPEC production cutbacks continued to show up in U.S. import levels in March. Total imports, which had been as high as 6.4 million B/D as recently as December, decreased to 5.4 million B/D in March. Nevertheless, the first quarter's imports were still up nearly 1 million B/D from a year ago, approximately equal to the increase in the gap between domestic supplies and deliveries.

Roughly one fourth of March's 815 thousand B/D imports increase was in products, which rose about 225 thousand B/D. Finished gasoline and blending components rose 116 thousand B/D from last March's unusually low levels, to 357 thousand B/D. Both distillate and residual fuel oil imports changed only slightly year to year in March.

Refinery Operations

EMPHASIS SHIFTS TO GASOLINE.

Refinery turnarounds in March helped to hold utilization of distillation capacity at 78 percent—lower than the 80s of recent previous months but still almost two percentage points ahead of last March. With the springtime turnarounds came a strong shift to higher gasoline yields, which jumped 1.5 percentage points from February to



53.3 percent on input to distillation units, a higher-than-typical yield for March. Distillate yields, in the face of flat demand and near-end-of-season inventories higher than for March of the previous two years, declined by a similar number of points.

Last year's seasonal shift to higher gasoline and lower distillate yields was more gradual than this year's. As a result, this March's gasoline production rose over 6 percent year to year, while distillate production fell more than 10 percent measured against output for last March.

Inventories

FIRST QUARTER DROP LESS THAN AVERAGE.

Total stocks fell 9 million barrels, less than a third of the average of the previous five

years. In fact, for the first quarter as a whole, stocks have fallen only about 33 million barrels versus an average of roughly 75 million, leaving month-end stocks for March a little more than 5 percent higher than last year.

Crude stocks rose 6 million barrels for the month to 335 million barrels, in the middle of the range for crude oil stocks during the past twelve months. Gasoline stocks declined about 5 million barrels in March, and distillate stocks, about 18 million barrels. Neither decline was unusual for March, a month when the heating season is winding down and refinery runs typically diminish as refiners perform the necessary work to gear up for the peak gasoline production season ahead.

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- 1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.
- 2/ Includes lease condensate.
- 3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 520 million barrels as of March 31, 1987).

ESTIMATED UNITED STATES PETROLEUM BALANCE

(Daily Average in Thousands of 42 Gallon Barrels)

Products Supplied/Supply From Primary Storage	MARCH			YEAR-TO-DATE		
	1987 ¹	1986 ²	% Change	1987 ^{3*}	1986 ²	% Change
Products Supplied:						
Total motor gasoline	6,859	6,970	(1.6)	6,657	6,638	0.3
Finished leaded motor gasoline*	1,710	2,264	(24.5)	1,695	2,150	(21.2)
Finished unleaded motor gasoline*	5,149	4,706	9.4	4,962	4,488	10.6
Naphtha-jet	185	191	(3.1)	186	193	(3.6)
Kerosine-jet	1,075	1,011	6.3	1,121	1,060	5.8
Distillate fuel oil	3,082	3,168	(2.7)	3,237	3,283	(1.4)
Residual fuel oil	1,203	1,393	(13.6)	1,368	1,423	(3.9)
All other oils ⁴	3,659	3,632	0.7	3,867	3,793	2.0
Reclassified ⁵	- 267	- 176	51.7	- 279	- 333	(16.2)
Total domestic products supplied	15,796	16,189	(2.4)	16,157	16,057	0.6
Exports	825	710	16.2	823	808	1.9
Total products supplied	16,621	16,899	(1.6)	16,980	16,865	0.7
Supply:						
Domestic production:						
Crude oil ⁶	8,433	9,002	(6.3)	8,400	9,099	(7.7)
Natural gas liquids	1,473	1,617	(8.9)	1,529	1,682	(9.1)
Other supply ⁷	1,027	813	26.3	835	894	(6.6)
Total domestic supply	10,933	11,432	(4.4)	10,764	11,675	(7.8)
Imports:						
Crude oil, total	3,533 ^{10/}	2,941 ^{10/}	20.1	3,910 ^{10/}	3,069 ^{10/}	27.4
Canadian	536	512	4.7	568	497	14.3
Other	2,997	2,429	23.4	3,342	2,572	29.9
Products, total	1,860	1,637	13.6	1,912	1,776	7.7
Residual fuel oil	565	571	(1.1)	622	593	4.9
Other	1,295	1,066	21.5	1,290	1,183	9.0
Total imports	5,393	4,578	17.8	5,822	4,845	20.2
Total supply	16,326	16,010	2.0	16,586	16,520	0.4
Stock change, all oils	- 295	- 889	XXXX	- 394	- 345	XXXX
Refinery Operations						
Input to crude oil distillation units	12,100	11,753	3.0	12,371	12,132	2.0
Operable capacity	15,594	15,481	0.7	15,609	15,537	0.5
Refinery utilization (%) ⁸	77.6%	75.9%	2.2	79.3%	78.1%	1.5
Crude oil runs	12,012	11,648	3.1	12,247	11,983	2.2
Stocks (millions bbls.)	1987			1986 ²	% Change from ...	
	Mar. 31 ⁹	Feb. 28 ⁹		Mar. 31	Previous Month	Year Ago
Crude oil ^{10/}	335.3	329.4		340.9	1.8	(1.6)
Unfinished oils	106.6	101.5		102.9	5.0	3.6
Total motor gasoline**	247.3	252.5 ^{r/}		219.9	(2.1)	12.5
Finished leaded motor gasoline*	65.1	70.0		71.0	(7.0)	(8.3)
Finished unleaded motor gasoline*	139.3	139.3 ^{r/}		114.0	-	22.2
Naphtha-jet	7.2	6.8		5.8	5.9	24.1
Kerosine-jet	41.7	41.1		41.6	1.5	0.2
Distillate fuel oil	106.8	125.1 ^{r/}		99.3	(14.6)	7.6
Residual fuel oil	38.2	37.5		38.8	1.9	(1.5)
All other oils	165.6	164.0 ^{r/}		145.2	1.0	14.0
Total all oils	1,048.7	1,057.9 ^{r/}		994.4	(0.9)	5.5

1/ Based on API estimated data converted to a monthly basis.

2/ Source: U.S. Department of Energy.

3/ Source: January, U.S. Department of Energy, February-March, API.

4/ Includes crude losses.

5/ Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from total domestic products supplied.

6/ Includes lease condensate.

7/ Includes Unaccounted-for crude oil, Refinery input of other hydrocarbons, and Processing gain.

8/ Represents "Input to crude oil distillation units" as a percent of "Operable capacity."

9/ Derived by interpolating API weekly stocks data.

10/ Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.

R/ Revised.

* Included in motor gasoline.

** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.